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TITLE: Tableting properties of experimental and commercially available lactose granulations for direct compression
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AB Lactose granulations (125-250 μm) were prepared from 2 different α-lactose monohydrate powders and one roller dried β-lactose powder resp., by wet granulation with only water as a binder. As an effect of the granulation process, the flow properties improved, but the compactibility decreased. Moreover, the lubricant sensitivity of the granule fractions was higher than that found for the starting materials. The compactibility of the granule fractions was dependent on the type of lactose, the surface area of the starting powder and the granule bulk d. For lubricated lactose granulations, the lubricant sensitivity, expressed as Lubricant Sensitivity Ratio (LSR), increased with an increase of bulk d. The β-lactose content of roller-dried β-lactose is hardly affected by the granulation process, which explains the good compactibility of the granule fractions prepared from this type of lactose. On the other hand, anhydrous α-lactose present in the roller-dried β-lactose starting material is converted into α-lactose monohydrate during the granulation process, which improves **tablet** disintegration. The compaction properties of com. available lactose granulations were compared with those of the exptl. granulations and with a **free** flowing sieved α- **lactose** monohydrate. As an effect of the higher powder surface area and the relatively low bulk d., Tablettose has a better compactibility than α-lactose monohydrate 100 Mesh. The excellent compactibility of another com. available lactose granulation, Pharmatose DCL 15, was attributed to the presence of more β-lactose, providing strong intergranular cohesion.

ST **tablet** lactose granulation direct compression

IT Pharmaceutical dosage forms
(**tablets**, tableting properties of lactose granulations for direct compression)